

**HEAVY MOBILE  
EQUIPMENT MECHANIC  
WG-5803-10**

**TRANSPORTATION  
MAINTENANCE**

**I. POSITION AND ORGANIZATION INFORMATION****Position:**

Heavy Mobile Equipment Mechanic, WG-5803-10

**Purpose of position:**

The primary purpose of this job is to maintain, troubleshoot, overhaul, repair, and modify a variety of heavy duty vehicles and mobile equipment which have utility systems or special hydraulic, pneumatic, mechanical, electrical, or electronic systems, features, or controls designed for such purposes as construction, combat, earth moving, firefighting, and comparable industrial or special applications.

**Organization:**

Transportation Branch

**Organization goals:****II. MAJOR DUTIES****A. Duty:**

Troubleshoots hard-to-locate problems, identifies defects and causes of mechanical problems to determine type and extent of necessary repairs to a variety of heavy mobile vehicles and equipment. (50%)

**Tasks:**

1. Traces and locates defects and causes of mechanical problems to determine type and extent of necessary repairs.

**B. Duty:**

Repairs, overhauls, and rebuilds a variety of heavy mobile equipment/vehicles such as bulldozers, road graders, power shovels, and mobile cranes, including their major systems, i.e., diesel, multi-fuel, and gasoline engines (including supercharged and turbocharged), automatic/manual transmissions, multi-gear assemblies, and a variety of positioning systems. May work on one type of major complex system such as cross-drive transmissions. Connects, meshes, aligns, and adjusts items and systems to assure proper operation of the complete system or vehicle. (50%)

**Tasks:**

1. Repairs/overhauls a variety of heavy mobile equipment.
2. Repairs/overhauls major systems.
3. Adapts components for various uses.

**C. Other Work Requirements**

1. This position requires the employee to drive a motor vehicle. An appropriate, valid driver's license is required for the position.
- 2.

## III. CLASSIFICATION FACTORS

## Factor 1. Knowledge

1. -- Thorough knowledge of the mechanical makeup, operations, and working relationship of heavy duty systems, assemblies, and parts, including such major systems as: diesel, multifuel, and gasoline engines, including supercharged, turbocharged, and turbine engines; automatic and manual transmissions and gear reduction systems.

-- Knowledge of how electrical, electronic, hydraulic, pneumatic, and other nonmechanical systems tie in with and affect the operation of mechanical systems.

-- Ability to trace and locate defects which cause hydraulic and other major systems to fail or not perform up to specifications. Must be able to analyze malfunctions and determine the extent of repairs necessary by visual and auditory examinations and by use of a wide variety of test equipment such as engine analyzers, injector testers, micrometers, calipers, dial indicators.

-- Ability to select and comply with technical manuals, illustrations, specifications, diagrams, schematics, and similar guides to make repair and modifications. Applies skill in measuring, fitting, and installing needed components to clearances which are specified in manuals or instructions. Applies skill in connecting, meshing, aligning, and adjusting components to assure effective operation of the complete system or vehicle.

-- Skill in the use of basic and specialized tools and test equipment. Ability to interpret and diagnose the results from the tests.

## Factor 2. Responsibility

The employee selects the best work methods to find and correct mechanical defects and make repairs. Selects and safely uses proper tools, devices, manuals, references, and efficient procedures and techniques. Uses judgment to determine the extent of major repairs based on diagnoses, work orders, user reports, inspection reports, and vehicle records. Informs leader/supervisor of changes to anticipated repairs. Completes work and insures that clearances, fittings, adjustments, settings, replacements, and repairs are correctly and precisely made in accordance with existing technical manuals, specifications or instructions. Work is accomplished with little or no review during progress or upon completion.

## Factor 3. Physical Effort

Works in tiring or uncomfortable positions for long periods. The work requires frequent standing, bending, reaching, stretching, climbing, and crouching. Works on top of, under, and in tight compartments, performing strenuous work while in cramped or awkward positions. Frequently lifts and carries items unassisted weighing up to 40 pounds and often exerts similar effort in pushing, pulling, and positioning parts, assemblies, and equipment. Frequently lifts and moves heavier items with the assistance of other workers or with lifting devices such as jacks, hoists, and cranes. May work from ladders or work platforms at varying heights.

## Factor 4. Working Conditions

Works both inside and outside. When inside, is frequently exposed to drafts, changing temperatures, and noise which is difficult to talk above. When

outside, is exposed to inclement weather conditions. Worker is exposed to irritations and discomfort from dust, heat, and fumes. Worker is subject to cuts, burns, chemical irritations, bruises, electrical shock, and injuries from falls. Follows prescribed safety practices and uses safety equipment such as ear devices, hard hats, hard-toe shoes, gloves, respirators, and protective clothing. Some of these safety items may be uncomfortable to wear or use and must be worn for long periods of time.

## IV. CLASSIFICATION SUMMARY

## In this position:

Duty A. 50% WG-5803-10 Heavy Mobile Equipment Mechanic  
Troubleshoots Hard-To-Locate Problems

Duty B. 50% WG-5803-10 Heavy Mobile Equipment Mechanic  
Repairs Mobile Equipment

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List of Modified Duties and Factors:

Duty B. has been edited. The final grade may or may not be appropriate.  
The factors have not been changed.

OPM Job Grading Standard, Heavy Mobile Equipment Mechanic, WG-5803-10; TS-59,  
dated January 1991.

Grade: WG-10

## V. CLASSIFICATION REMARKS:

Duty B - Added Task 3. Constitutes less than 5% of workload, therefore not  
grade controlling.